SRPM24

24-port Managed PoE Midspan Switch

User Manual

VER 1.20

Notice

The contents of this manual are based on the table below listing firmware version, software kernel version, and hardware version. If the functions are different from the description of contents of manual, please contact the local sale dealer for more information.

Firmware Version	V1.00
Kernel Version	V1.17
Hardware Version	A5.00

FCC Warning

This Equipment has been tested and found to comply with the limits for a Class-A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. It may cause harmful interference to radio communications if this equipment is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE Mark Warning

This is a Class-A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Content

FCC Warning ii

CE Mark Warning ii

Content iii

Introduction 5

Features 6

Software Features 6

Package Contents 8

Hardware Description 9

Physical Dimension 9

Front Panel 9

LED Indicators 9

Rear Panel 10

Power On 11

Desktop Installation 11

Attaching Rubber Feet 11

Rack-mounted Installation 12

Network Application 13

Console Management 14

Connecting to the Console Port 14

Login in the Console Interface 15

CLI Management 16

Commands Level 16

Commands Set List 17

System Commands Set 17

SNMP Commands Set 18

TFTP Commands Set 19

SystemLog, SMTP and Event Commands Set 19

SNTP Commands Set 20

PoE Commands Set 20

UPS Commands Set 21

Web-Based Management 22

About Web-based Management 22

Preparing for Web Management 22
System Login 22
System 23
System Information 23
Console Port Information 24
System IP Configuration 24
Security Manager 25
System Log 26
PoE 27
PoE Status 27
Controller Temperature 28
PoE Power Manage 29
PoE Port Configuration 30
PoE Port Status 31
MISC Configuration 31
UPS Status 32
SNTP Configuration 33
SNMP Configuration 34
Email Alert 36
IP Security 37
TFTP Firmware Update 38
Configuration Backup 39
Save Configuration 40
Factory Default 40
System Reboot 40

Troubles shooting 43

Incorrect connections 43
- Faulty or loose cables 43
- Non-standard cables 43
- Improper Network Topologies 43

Diagnosing LED Indicators 44

Technical Specification 45

Technical specifications of SRPM24 45

Introduction

Power-over-Ethernet (PoE) eliminates the need to run AC power to other devices on a wired LAN. Using Power-over-Ethernet system installers needs to run only a single Category 5 Ethernet cable that carries both power and data to each device. This allows greater flexibility in the locating of network devices and significantly decreasing installation costs in many cases.

There are two system components in PoE -- the PSE (Power Sourcing Equipment) and the PD (Powered Device). The IEEE 802.3af specification defines PSE which inserts power onto an Ethernet cable. The PSE may be located at the device/switch (Endspan configuration), or it may be a separate device located between the device/switch and the PD (Midspan configuration). The PD is the natural termination of this link, receiving the power, and could be an IP phone, a WLAN access point, or any other IP device requires power. The current is transmitted over two of the four twisted pairs of wires in a Category-5 cable.

Power over Ethernet follows the IEEE 802.3af and is completely compatible with existing Ethernet devices/switches and networked devices. Because the Power Sourcing Equipment (PSE) tests whether a networked device is PoE-capable, power is never transmitted unless a Powered Device is at other end of the cable. It also continues to monitor the channel. If the Powered Device does not draw a minimum current, because it has been unplugged or physically turned off, the PSE shuts down the power to that port. Optionally, the standard permits Powered Devices to signal to the PSEs exactly how much power they need.

Features

- 24-port PoE Midspan switch with 1 10/100TX for system management
- 400W Fully Power supported
- Supports 802.3af pre-standard PD
- Temperature monitoring
- Power limit setting
- TFTP firmware update
- System log
- Configuration up-load and down-load
- SNMP / Web/CLI/Telnet management
- Circuit short protection
- Confirms to IEEE802.3 10BASE-T, 802.3u 100BASE-TX and 802.3af Power over Ethernet
- Supports Redundant Power
- Simple Network Time Protocol (SNTP)
- Simple Mail Transfer Protocol (SMTP)
- DHCP Client supported
- SNMP Trap supported
- Management IP address security
- Fan fail detection
- Power overloading protection

Software Features

Management	SNMP, Telnet, CLI and Web management.
RFC Standard	RFC1213 SNMP MIB II, RFC 1628 UPS MIB, RFC2030 SNTP, RFC 2821 SMTP, RFC1215 Trap, RFC 3621 Power over Ethernet, Private MIB, PoE MIB

SNMP Trap	1. Cold start 2. Warm start 3. Authorization fail 4. PD disconnect trap-PoE port event 5. DC disconnect trap-PoE port Event 6. Disconnect PD off-PoE port event 7. Over loading trap-PoE port event 8. Short circuit trap-PoE port event 9. Over Temp protection trap –PoE port event 10. Power management –PoE port off event * Trap station up to 3
Software Upgrade	TFTP firmware upgrade
PoE System Configuration	IEEE802.3af System status display: power voltage, current, power consumption Temperature and power consumption limitation setup
PoE Port Configuration	Port enable/disable Power limitation rule configuration
PoE Port Status	Port status Feeding power, current, detected class Show the cause of port off (AC disconnect off, DC disconnect off, Disconnect PDU off, Over loading off Short circuit off, Over Temp. protection off, Power management — Port off)
DHCP	DHCP client
IP Management Security	Supports 10 IP address accounts for system management security for Web, SNMP, Telnet management security to prevent intruder
Redundant Power Monitor	Input DC voltage, Input DC frequency, Input DC current, Output DC Voltage, Output DC current, and Buzzer control
SYSLOG	Supports System log record and remote system log server

SNTP	Supports RFC2030 Simple Network Time Protocol
SMTP	Up to 4 email recipients
Configuration Upload and Download	Backup and restore configuration file (via TFTP backup and restore)

Package Contents

Please refer to the package contents list below to verify them against the checklist.

- 24-port Managed PoE Midspan switch x 1
- User manual x 1
- Mounting plate x 2
- Module plate x 1
- DB9-Male to DB9-Female RS-232 cable x 1
- AC Power Cord x 1
- Rubber foot x 4

Compare the contents with the standard checklist above. If any item is damaged or missing, please contact the local dealer for service.

Hardware Description

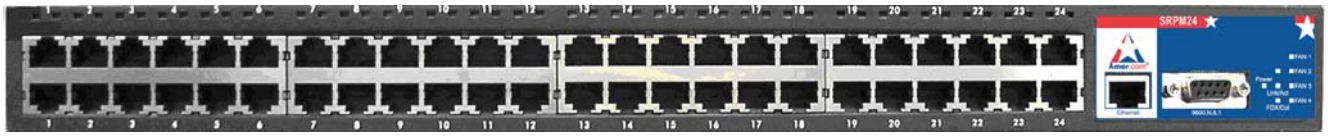
In this paragraph, the hardware spec, port, cabling information, and wiring installation will be described.

Physical Dimension

Dimension (W x D x H): 17.3 inch x 11 inch x 1.7 inch
440mm x 280mm x 44mm

Front Panel

The Front Panel of SRPM24, the 24-port Managed PoE Midspan switch is shown as below,



LED Indicators

LED	Status	Color	Description
PWR	On	Green	System power is active
	Off	--	System power is not active
FDX / COL	On	Orange	The connection is operating in full-duplex mode.
	Blink	Green	Collision of packets occurs.
	Off	--	The connection is operating in half-duplex mode.

LINK	On	Green	The Ethernet port is connecting with the device.
	Off	--	No device attached.
ACT	On	Green	The port is receiving or transmitting data.
	Off	--	No data occurred
FAN1~FAN4	On	Red	The fan failed.
	Off	--	The fan is working functionally.
Forwarding	On	Green	Power is transmitting to the device
	Off	--	Power is not transmitting to the device
Overload	On	Green	Connected device is overloaded or has shorted.
	Off	--	No device attached or power feeding is in good condition.

Rear Panel

The 3-pronged power plug is located at the rear Panel of the 24-port Managed PoE Midspan switch as shown below. The PoE Midspan switch will work with AC in the range of 100-240Vac, 50-60Hz and also provides one DC 48V input interface for the extra power connection. The RS-232 DB-9 female connector on rear side is used for UPS management.

The Rear Panel of SRPM24

Power On

Connect the power cord to the power socket on the rear panel of the 24-port Managed PoE Midspan switch. Connect the other side of the power cord to the power outlet. The internal power supply of the 24-port Managed PoE Midspan switch works with voltage in the range of 100-240 Vac, frequency 50~60Hz. Check the power indicator on the front panel to see if power is properly supplied.

Desktop Installation

Set the Device on a sufficiently large flat space with a power outlet nearby. The surface where you put your Device should be clean, smooth, level and sturdy.

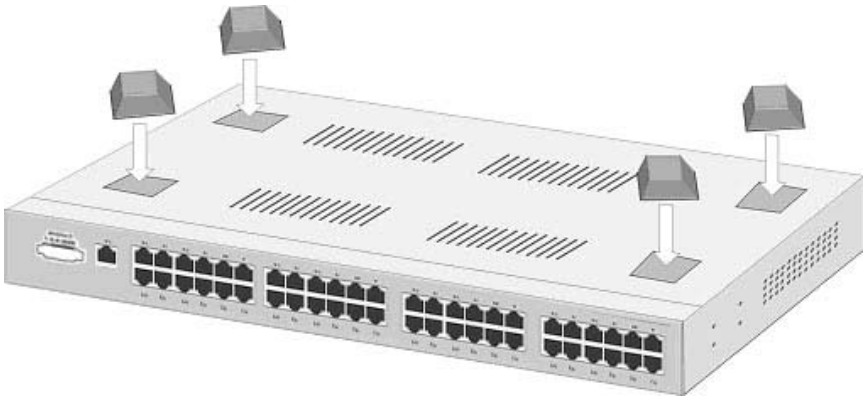
Make sure there is enough clearance around the Network device to allow attachment of cables, power cord and allow air circulation.

Attaching Rubber Feet

A. Make sure mounting surface on the bottom of the Network device is grease and dust free.

B. Remove adhesive backing from your Rubber Feet.

C. Apply the Rubber Feet to each corner on the bottom of the Network device. These footpads can prevent the Network device from shock/vibration.



Attaching Rubber Feet to each corner on the bottom of the Device

Rack-mounted Installation

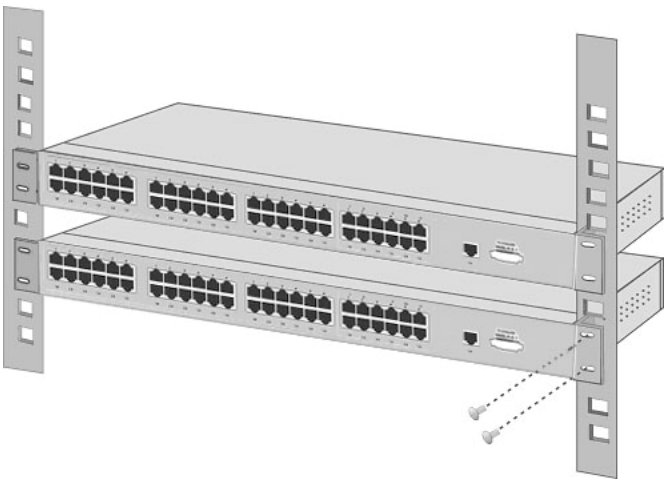
The switch comes with a rack-mounted kit and can be mounted in an EIA standard size, 19-inch Rack. The Device can be placed in a wiring closet with other equipment.

Perform the following steps to rack-mount the device:

A. Position one plate to align with the holes on one side of the device and secure it with the smaller plate screws. Then attach the remaining plate to the other side of the Device.

Attach mounting plates with screws

B. After attaching both mounting plates, position the switch in the rack by lining up the holes in the plates with the appropriate holes on the rack. Secure the Device to the rack with a screwdriver and the rack-mounting screws.

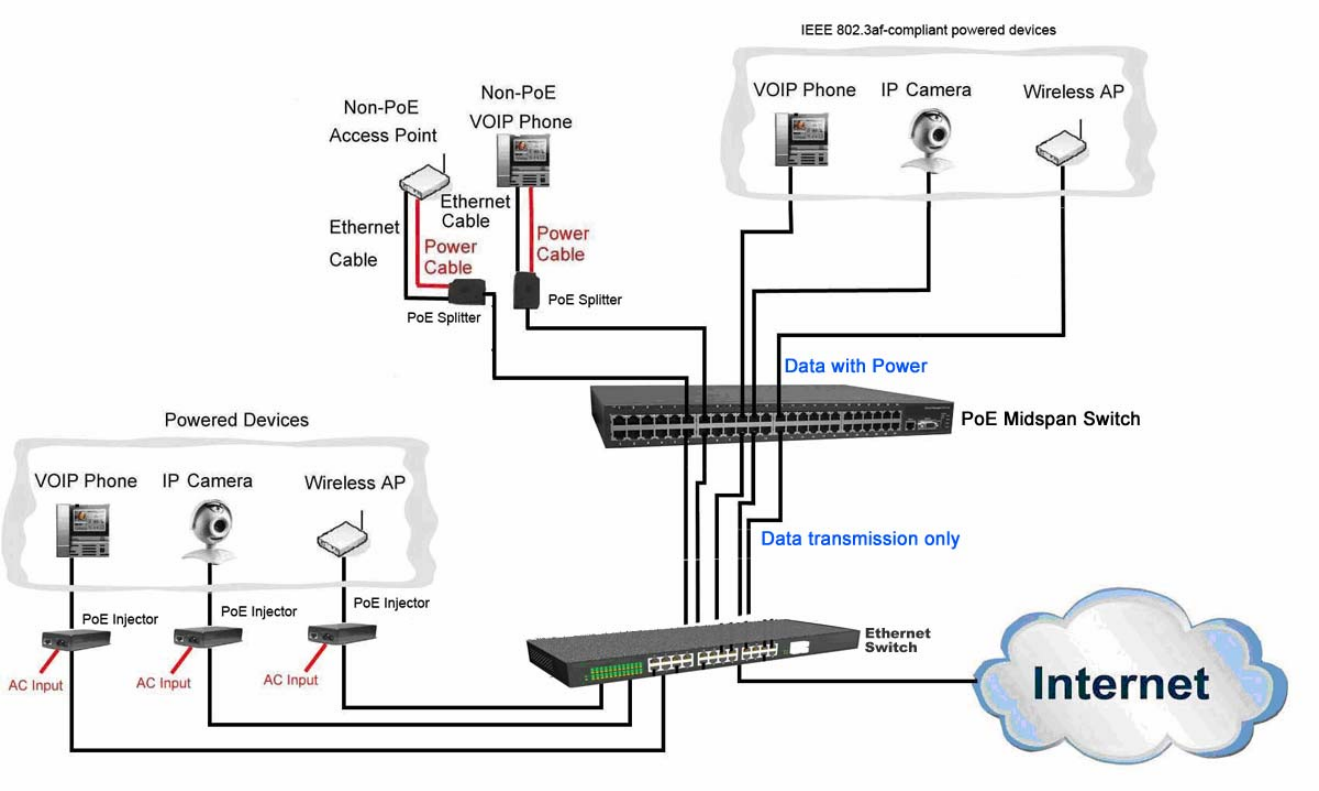


Mount the 24-port managed PoE Midspan switch in an EIA standard 19-inch Rack

Note: For proper ventilation, allows about at least 4 inches (10 cm) of clearance on the front and 3.4 inches (8 cm) on the back of the Device. This is especially important for enclosed rack installation.

Network Application

The 24-port Managed PoE Midspan switch can provides power to the PDs that follow the IEEE 802.3af standard in the network. It can solve the problem of position limitation. The network device can be installed in more appropriate position for better performance. The following figures are examples for network application of the Power over Ethernet Device.

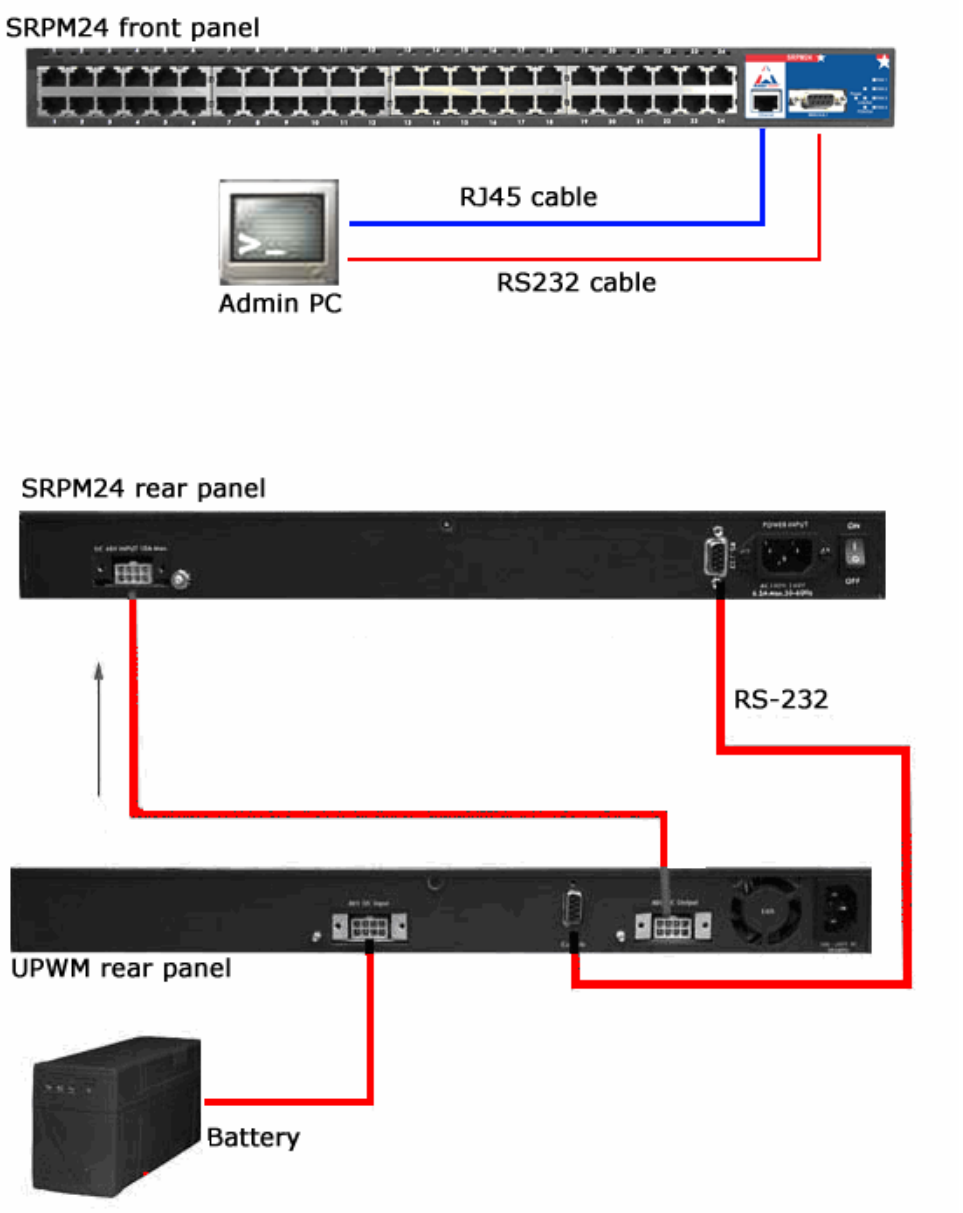


24-port Managed PoE Midspan switch network application

Console Management

Connecting to the Console Port

1. Attach one end of the supplied RS-232 cable to PC or terminal and the other end to the console port of the device. The connected terminal or PC must support the terminal emulation program.
2. Connect one end of an RJ-45 cable to the Ethernet port at the front panel and the other end to PC or terminal for web interface management.



The connections among PC, 24-port Managed PoE Midspan switch, UPWM and battery

Login in the Console Interface

When the connection between the device and PC is ready, turn on the PC and run a terminal emulation program or **Hyper Terminal** and configure its **communication parameters** to match the following default characteristics of the console port:

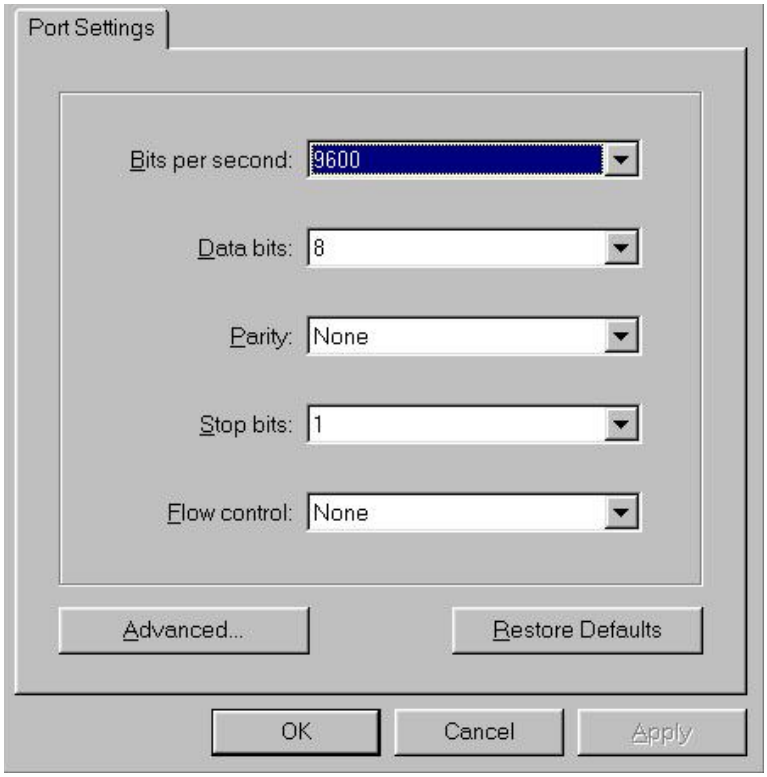
Baud Rate: 9600 bps

Data Bits: 8

Parity: none

Stop Bit: 1

Flow control: None



The settings of communication parameters

After finishing the parameter settings, click '**OK'** button. When the blank screen shows up, press **Enter** key to bring out the login prompt. Key in '**admin**' (default value) for both User name and Password (use **Enter** key to switch), then press **Enter** key and the Main Menu of console management appears.

Console login

CLI Management

The system supports the console management—CLI command. After you log in on to the system, you will see a command prompt. To enter CLI management interface, type in "**enable**" command (or simply enter "e" and press Enter).

Commands Level

Modes	Access Method	Prompt	Exit Method	About This Mode
User EXEC	Begin a session with your device.	SRPM24>	Enter **logout** or **quit**.	The user commands available at the user level are a subset of those available at the privileged level. Use this mode to • Perform basic tests. • Display system information.
Privileged EXEC	Enter the **enable** command while in User EXEC mode.	SRPM24#	Enter **disable** to exit.	The privileged command is the advanced mode. Use this mode to • Display advanced function status • Save configuration
Global Configuration	Enter the **configure** command while in privileged EXEC mode.	SRPM24 (config)#	To exit to privileged EXEC mode, enter **exit**	Use this mode to configure those parameters that are going to be applied to your device.
PoE Configuration	Enter the **poe** command while in User EXEC mode	SRPM24 (poe)#	Enter **exit** to exit.	Use this mode to configure PoE parameters.
UPS Configuration	Enter the **ups** command while in User EXEC mode	SRPM24 (ups)#	Enter **exit** to exit.	Use this mode to configure UPS parameters.

Commands Set List

User EXEC	**D**
Privileged EXEC	**E**
Global configuration	**C**
PoE	**P**
UPS	**U**

System Commands Set

Commands	Level	Description	Example
show system-info	**D**	Shows system information	SRPM24>**show system-info**
show version	**D**	Shows version information	SRPM24>**show version**
show config	**D**	Shows device configuration	SRPM24>**show config**
show terminal	**E**	Shows console information	SRPM24#**show terminal**
write memory	**C**	Save user configuration into permanent memory (flash rom)	SRPM24#**write memory**
write terminal	**C**	Displays user configuration on terminal	SRPM24#**write terminal**
system name **[System Name]**	**C**	Configure system name	SRPM24(config)#**system name xxx**
system location **[System Location]**	**C**	Set device system location string	SRPM24(config)#**system location xxx**
system description **[System Description]**	**C**	Set device system description string	SRPM24(config)#**system description xxx**
show system-info	**D**	Shows system information	SRPM24>**show system-info**
ip address **[Ip-address] <space>** **[Subnet-mask] <space>** **[Gateway]**	**C**	Configure the IP address of the device	SRPM24(config)#**ip address 192.168.1.1 255.255.255.0 192.168.1.254**
ip dhcp **[Enable|Disable]**	**C**	Enable DHCP client function of the device	SRPM24(config)#**ip dhcp enable**
reload	**C**	Reboot the device	SRPM24(config)#**reload**

default	C	Restore to default	SRPM24(config)#**default**
username [Username]	C	Change a login username. (maximum 10 words)	SRPM24(config)# **username xxxxxx**
password [Password]	C	Specify a password (maximum 10 words)	SRPM24(config)# **password xxxxxx**
security enable [Enable|Disable]	C	Enable IP security function	SRPM24(config)# **ip-security enable**
http-server [Enable|Disable]	C	Enable IP security of HTTP server	SRPM24(config)# **ip-security http-server enable**
telnet-server [Enable|Disable]	C	Enable IP security of telnet server	SRPM24(config)# **ip-security telnet-server enable**
address [1~10] [IP]	C	Set the IP security list	SRPM24(config)# **ip-security address 1 192.168.1.55**
show ip-security	E	Shows the information of IP security	SRPM24#**show ip-security**

SNMP Commands Set

Commands	Level	Description	Example
snmp system-name [System Name]	C	Set SNMP agent system name	SRPM24(config)#**snmp system-name l2switch**
snmp system-location [System Location]	C	Set SNMP agent system location	SRPM24(config)#**snmp system-location lab**
snmp community-strings [Community] **right** [RO/RW]	C	Add SNMP community string.	SRPM24(config)#**snmp community-strings public right rw**
snmp-server host [Host-address] **community** [Community-string]	C	Configure SNMP server host information and community string.	SRPM24(config)#**snmp-server host 192.168.1.50 community public trap-version v1**
no snmp-server host [Host-address]	C	Remove SNMP server host information.	SRPM24(config)#**no snmp-server host 192.168.1.50**
no snmp community-	C	Remove SNMP community	SRPM24(config)#**no snmp community-**

strings [Community]		string.	**strings public**

TFTP Commands Set

Commands	Level	Description	Defaults Example
copy flash:config.text tftp	C	Save configuration to TFTP and need to specify the IP of TFTP server and the file name of image.	SRPM24(config)# **copy flash:config.text tftp** **Ex: Server IP: 192.168.1.20** **Image Filename: config.text**
tftp:config.text flash	C	Get configuration from TFTP server and need to specify the IP of TFTP server and the file name of image.	SRPM24(config)# **tftp:config.text flash** **Ex: Server IP: 192.168.1.20** **Image Filename: config.text**
tftp:firmware flash	C	Upgrade firmware by TFTP and need to specify the IP of TFTP server and the file name of image.	SRPM24(config)# **tftp:firmware flash** **Ex: Server IP: 192.168.1.20** **Image Filename: firmware name**

SystemLog, SMTP and Event Commands Set

Commands	Level	Description	Example
systemlog ip [IP address]	C	Set System log server IP address.	SRPM24(config)# **systemlog ip 192.168.1.100**
systemlog [Enable|Disable]	C	Set System Log Function	SRPM24(config)# **systemlog enable**
show systemlog	D	Display system log.	SRPM24>**show systemlog**
show systemlog	E	Show system log client & server information	SRPM24#**show systemlog**
smtp [Enable|Disable]	C	Enable SMTP function	SRPM24(config)#**smtp enable**
smtp ip [IP]	C	Configure SMTP server IP	SRPM24(config)#**smtp serverip 192.168.1.5**
smtp auth [Enable|Disable]	C	Enable SMTP authentication	SRPM24(config)#**smtp auth enable**
smtp account [account]	C	Configure authentication account	SRPM24(config)#**smtp account Use**r

smtp password [password]	**C**	Configure authentication password	SRPM24(config)#**smtp password 123456**
smtp recept-mail-address [1~4] [Mail address]	**C**	Set SMTP recept mail address	SRPM24(config)#**smtp recept-mail-address 1 admin@amer.com**
show smtp	**P**	Shows the information of SMTP	SRPM24#**show smtp**
Smtp sender [sender name]	**C**	Set the smtp sender name	SRPM24(config)#**smtp sender**

SNTP Commands Set

Commands	Level	Description	Example
sntp enable [Enable|Disable]	**C**	Enable SNTP function	SRPM24(config)#**sntp enable**
sntp ip [IP]	**C**	Set SNTP server IP	SRPM24(config)#**sntp ip 192.169.1.1**
sntp timezone [Country]	**C**	Set timezone	SRPM24(config)#**sntp timezone Hawaii**

PoE Commands Set

Commands	Level	Description	Example
poe	**P**	Enable PoE function.	SRPM24#**poe**
portebl [Enable|Disable] [Ports]	**P**	Port Enable & Disable configure.	SRPM24(poe)#**portebl enable 2**
portplm [100~15400] [Port]	**P**	Port Power Limit Max Setting.	SRPM24(poe)#**portplm 15400 3**
system-power-limit [37~400]	**P**	Set system power limit value.	SRPM24(poe)#**system-power-limit 200**
8023af-pre-standard [Enable|Disable]	**P**	Set IEEE 802.3af pre-standard.	SRPM24(poe)#**8023af-pre-standard enable**
temperature-alarm [1~2] [Temperature (0-150C)]	**P**	Set system temperature alarm.	SRPM24(poe)#**temperature-alarm 1 50**

power-management [1~5]	**P**	Set power management mode.	SRPM24(poe)#**power-management 5**
show status	**P**	Shows PoE status.	SRPM24(poe)#**show status**
show configure	**P**	Shows PoE configuration	SRPM24(poe)#**show configure**
show system	**P**	Shows PoE system information.	SRPM24(poe)#**show system**
show temperature	**P**	Shows PoE system temperature.	SRPM24(poe)#**show temperature**
show power-management	**P**	Shows PoE power management mode.	SRPM24(poe)#**show power-management**

UPS Commands Set

Commands	Level	Description	Example
status	**U**	Show ups status	SRPM24(ups)#**status**
info	**U**	Show ups info	SRPM24(ups)#**info**
test10	**U**	Test ups for 10 seconds	SRPM24(ups)#**test10**

Web-Based Management

This section introduces the configuration and functions of the Web-Based management.

About Web-based Management

There is an embedded HTML web site residing in flash memory on CPU board of the device, which offers advanced management features and allows users to manage the device from anywhere on the network through a standard browser such as Microsoft Internet Explorer.

The Web-Based Management supports Internet Explorer 6.0 or later version. And, it is applied for Java Applets for reducing network bandwidth consumption, enhance access speed and present an easy viewing screen.

Preparing for Web Management

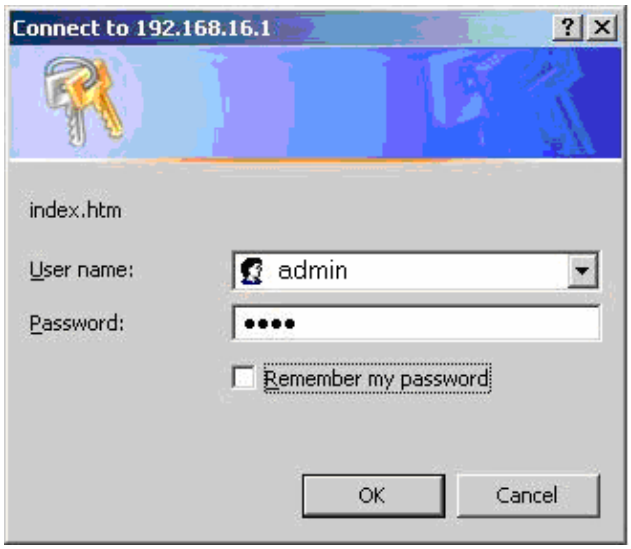
Before using the web management, install the managed PoE Midspan switch on the network and make sure that any one of the PCs on the network can connect with the managed PoE Midspan switch through its Ethernet port. The default value of IP, subnet mask, username and password for the managed PoE Midspan switch are listed as below:

- IP Address: **192.168.16.1**
- Subnet Mask: **255.255.255.0**
- Default Gateway: **192.168.16.254**
- User Name: **admin**
- Password: **admin**

System Login

1. Launch the Internet Explorer on the PC
2. Key in “http:// “+” the IP address of the device”, and then Press “**Enter**”.

3. The login screen will appear right after
4. Key in the user name and password. The default user name and password are the same as '**admin**
5. Press '**Enter**' or click **OK** button, and then the home screen of the Web-based management appears.



System

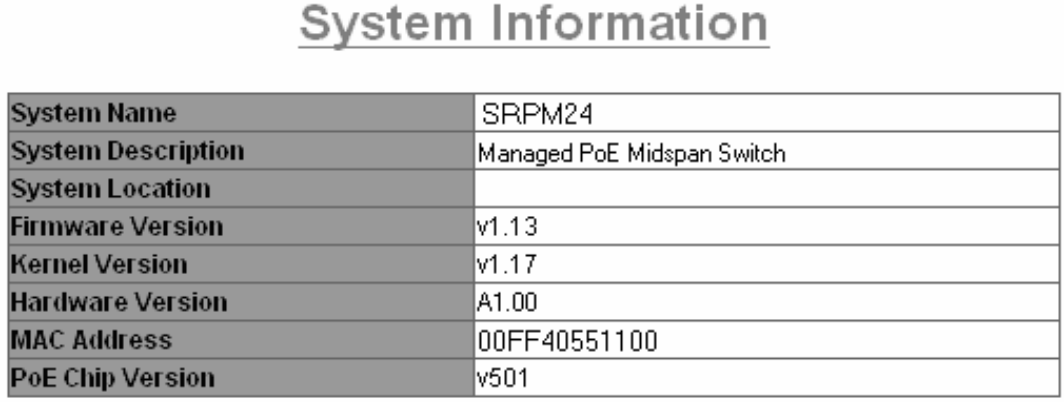
The article of **PoE** contains 5 sub-items, such as follows:

- **System Information**
- **Console Port Information**
- **System IP Configuration**
- **Security Manager**
- **System Log**

System Information

The System Information page displays the summary information of the Device.

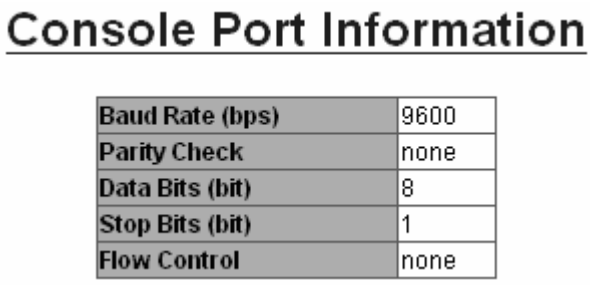
- **System Name:** Displays the system name of the managed PoE Midspan switch.
- **System Description:** Describes the managed PoE Midspan switch.
- **System Location:** Displays the device physical location.
- **Firmware Version:** Displays the firmware version of the device.
- **Kernel Version:** Displays the kernel software version.
- **Hardware Version:** Displays the hardware version.
- **MAC Address:** Displays the unique hardware address assigned by manufacturer.
- **PoE Chip Version:** Displays the PoE chip version on main board.



System information

Console Port Information

- **Baud Rate(bps):** Displays the transmission rate (bits per second).
- **Parity Check:** Displays which parity check method is used.
- **Data Bits(bit):** Displays the number of bits per unit of data.
- **Stop Bits(bit):** Displays the number of bits for announcing the end of the data.
- **Flow Control:** Displays the method of flow control.

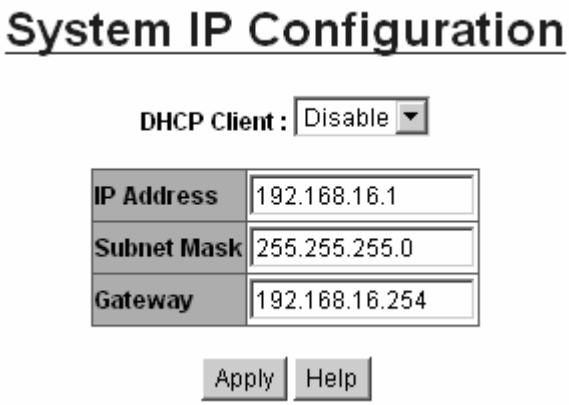


Console Port Information

System IP Configuration

User can configure the IP Settings and DHCP client function in here.

- **DHCP Client:** Enable or disable the DHCP client function. When DHCP client function is enabled, the managed PoE Midspan switch will be assigned an IP address from the network DHCP server. The default IP address will be replaced by the assigned IP address on DHCP server. After the user click **Apply** button, a popup dialog shows up to inform the user that when the DHCP client is enabled, the current IP will lose and the user should find the new IP on the DHCP server.
- **IP Address:** Assign the IP address that the network is using. If DHCP client function is enabled, the user doesn't need to assign the IP address. And, the network DHCP server will assign the IP address displaying in this column for the PoE Midspan switch. The default IP is 192.168.16.1.
- **Subnet Mask:** Assign the subnet mask to the IP address. If DHCP client function is enabled, the user does not need to assign the subnet mask.
- **Gateway:** Assign the network gateway for the PoE Midspan switch. The default gateway is 192.168.16.254.
- And then, click Apply



IP configuration

Security Manager

Change login user name and password for management security.

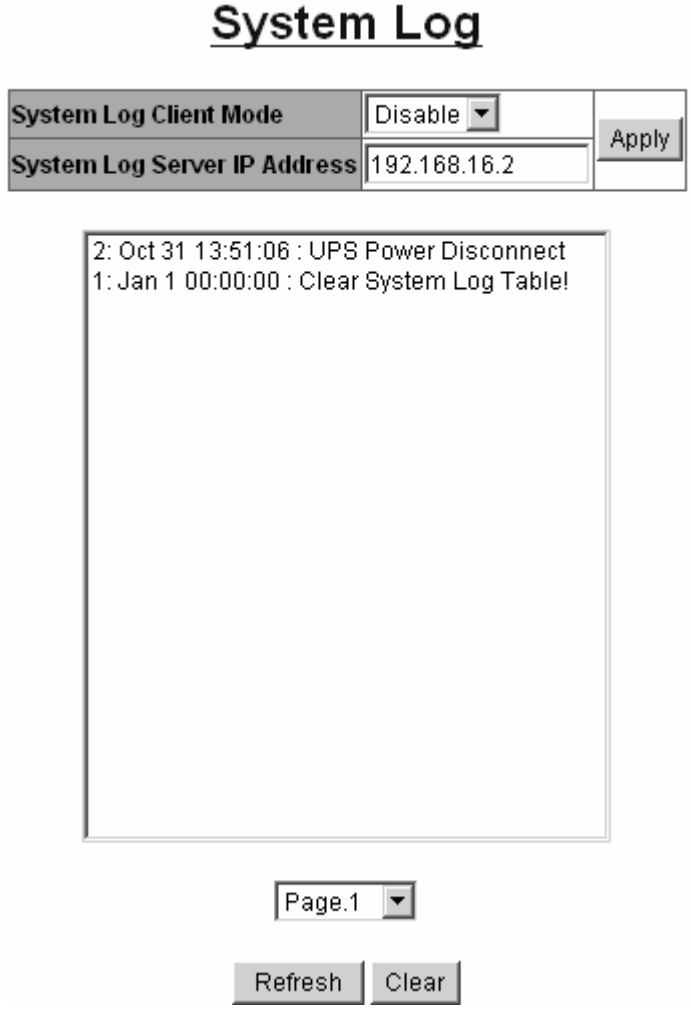
- **User Name:** Type in the new user name (The default value is "admin").
- **New Password:** Type in the new password (The default value is "admin").
- **Confirm Password:** Re-type the new password.
- And then, click Apply button to make the configuration effective.

Security Manager

System Log

Configure the system event mode to collect system log.

- **System Log Client Mode:** Select the system log mode—**Disable** or **Enable**.
- **System Log Server IP Address:** Assign the system log server IP.
- When System Log Client Mode is set as **Disable**, the system event log will only be reserved in the RAM of the PoE Midspan switch until next reboot. When System Log Client Mode is set as **Enable**, the system log will be reserved in the RAM of the PoE Midspan switch and sent to the system log server.
- Click Refresh to refresh the events log.
- Click Clear to clear all current events log.
- After configuring, click Apply.



System Log

PoE

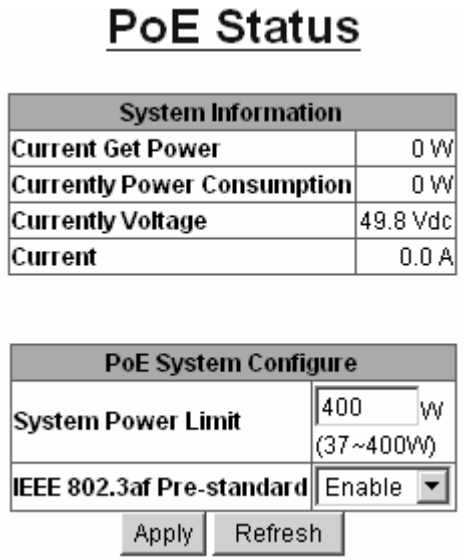
The article of **PoE** contains 5 sub-items, such as follows:

- **PoE Status**
- **Controller Temperature**
- **PoE Power Manage**
- **PoE Port Configuration**
- **PoE Port Status**

PoE Status

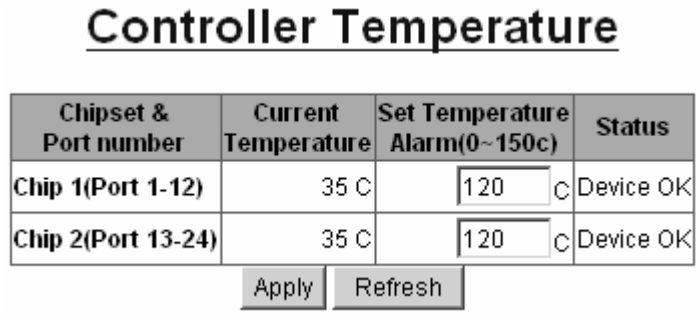
- **Current Get Power:** Displays the current get power (watts).
- **Currently Power Consumption:** Displays the currently power consumption.
- **Currently Voltage:** Displays the currently operating voltage.

- **Current:** Displays the loading current (ampere).
- **System Power Limit:** Key in the system power limit.
- **IEEE 802.3af Pre-standard:** Enable or disable IEEE 802.3af Pre-standard function. When it's disabled, the legacy powered devices will not be powered.
- Click Refresh for getting newest status, and then click Apply to have the configuration taken effective.



PoE Status

Controller Temperature

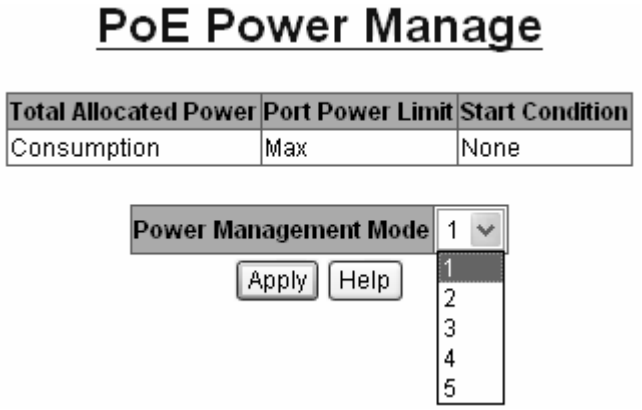


Controller Temperature

- **Chipset & Port number:** Displays the controller chip number or the group of ports.
- **Current Temperature:** Displays the current operating temperature of the chip.
- **Set Temperature Alarm:** Set the number of temperature in centigrade. When the operating temperature of the chip reaches this set number, the Status column next to it will show an alarm message.

- Click Refresh to refresh the current state information.
- And then, click Apply

PoE Power Manage



PoE Power Manage

- **Total Allocated Power:** Displays the total allocated power of the device.
- **Port Power Limit:** Displays the power limit to a single port.
- **Start Condition:** Displays the type of start condition.
- **Power Management Mode:** There are 5 modes for selecting. Please refer to the table below or click the Help button to view the help window.
- And then, click Apply

Mode	Total Allocated Power	Port Power Limit	Start Condition	Management Mode
1	Consumption	Max.	N/A	Dynamic
2	Consumption	Predefined	N/A	Static
3	Consumption	Predefined	Class	
4	Class	Class	N/A	Class
5	Class	Max.	N/A	

Power Management Mode

Management Mode:

Dynamic - based on actual power used (mode 1).

Static - preset by user (mode 2 & 3)

Class - set classification by PD, also according to IEEE 802.3af (mode 4 & 5).

Total Allocated Power:

Consumption - sum of power consumed by all ports.

Class - sum of all ports power according to their class, except for class 0 & 4 for which the actual power consumption is summed.

Port Power Limit:

Predefined - user defined limit by port power limit.

Class - if PD's power exceeds power according to its class.

Max - full power according to 802.3af (15.4W, 44V)

Start Condition:

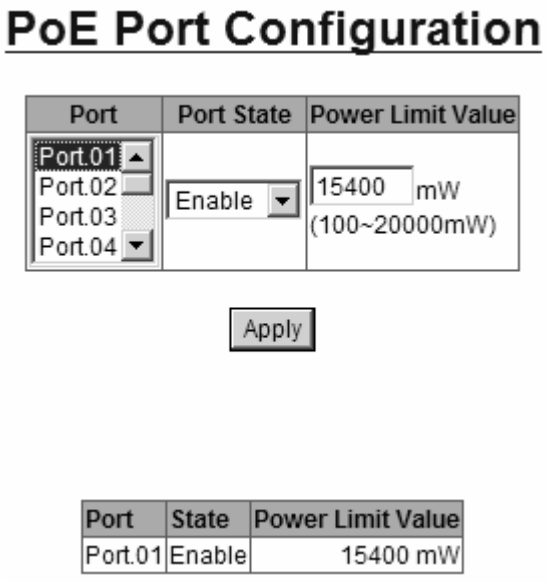
N/A - no special condition

Class - start port only, if its maximum allowed power according to its class is higher than the user defined power limit; except for classes 0-4 for which no start condition exists.

[Note]

PD **class 1** power is 4w, PD **class 2** power is 7w, PD **class 0, 3, 4** power is 15.4w.

PoE Port Configuration



PoE Port Configuration

- **Port:** Port 1 ~ port 24 are listed in this column for selecting.
- **Port State:** Enable or disable the port being selected in the left column.
- **Power Limit Value:** Set the power limit value to the port.
- And then, click Apply

PoE Port Status

- **Port:** Displays the port number.
- **Status:** Displays the status of the port.
- **Forward Power:** Displays the forwarding power which is provided by the device.
- **Current:** Displays the current of the port.
- **Class:** Displays the class number.
- **Event:** Displays the related events to the port.
- And then, click Refresh to get the newest information.

PoE Port Status

Port	Status	Forward Power	Current	Class	Event
Port.01	Forward	0.5 W	12 mA	0	Valid resistor detected
Port.02	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.03	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.04	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.05	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.06	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.07	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.08	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.09	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.10	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.11	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.12	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.13	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.14	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.15	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.16	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.17	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.18	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.19	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.20	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.21	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.22	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.23	Disconnect	0.0 W	0 mA	0	Detection is in Process
Port.24	Disconnect	0.0 W	0 mA	0	Detection is in Process

Refresh

PoE Port Status

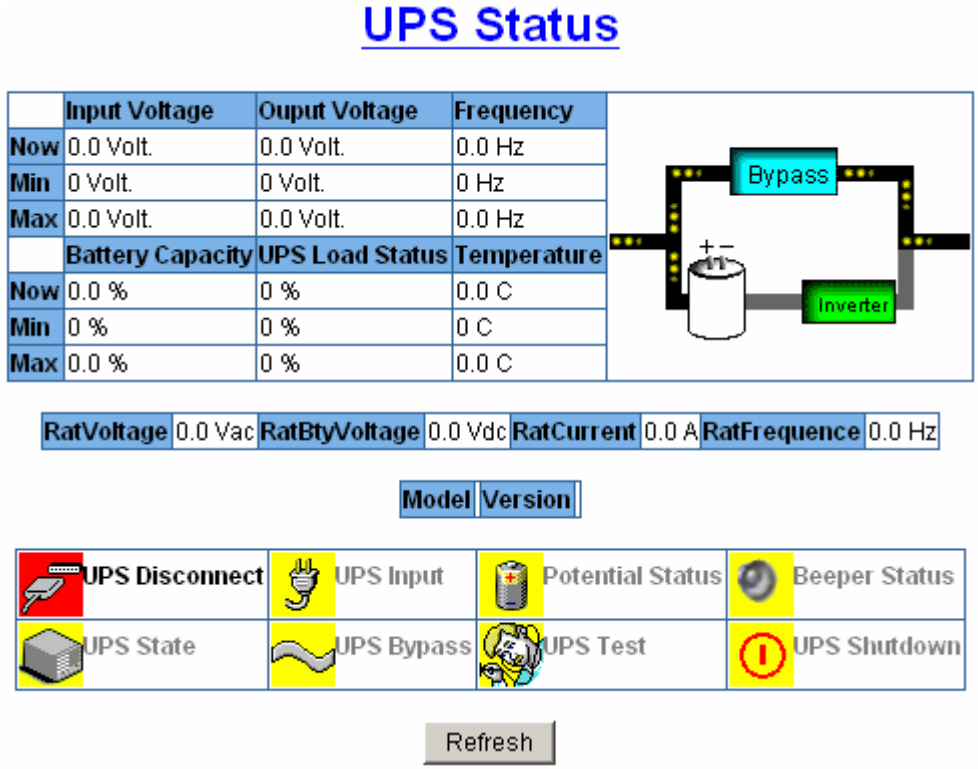
MISC Configuration

The article of MISC Configuration contains 5 sub-items:

- **UPS Status**
- **SNTP Configuration**
- **SNMP Configuration**

- **Email Alert**
- **IP Security**

UPS Status



Power Status

- **Input Voltage:** Displays the real, minimum, and maximum input voltage.
- **Output Voltage:** Displays the real, minimum, and maximum output voltage.
- **Frequency:** Displays the real, minimum, and maximum frequency.
- **Battery Capacity:** Displays the real, minimum, and maximum battery capacity.
- **UPS Load Status:** Displays the real, minimum, and maximum UPS load status.
- **Temperature:** Displays the real, minimum, and maximum operating temperature.
- **RatVoltage(Vac):** Displays the Rat Voltage(Vac).
- **RatVoltage(Vdc):** Displays the Rat Voltage(Vdc).
- **RatCurrent:** Displays the RatCurrent.
- **RatFrequence:** Displays the RatFrequence.
- Click Refresh button to get the newest information.

SNTP Configuration

User can configure the SNTP (Simple Network Time Protocol) settings. The SNTP allows user to synchronize device clocks in the Internet.

SNTP Configuration

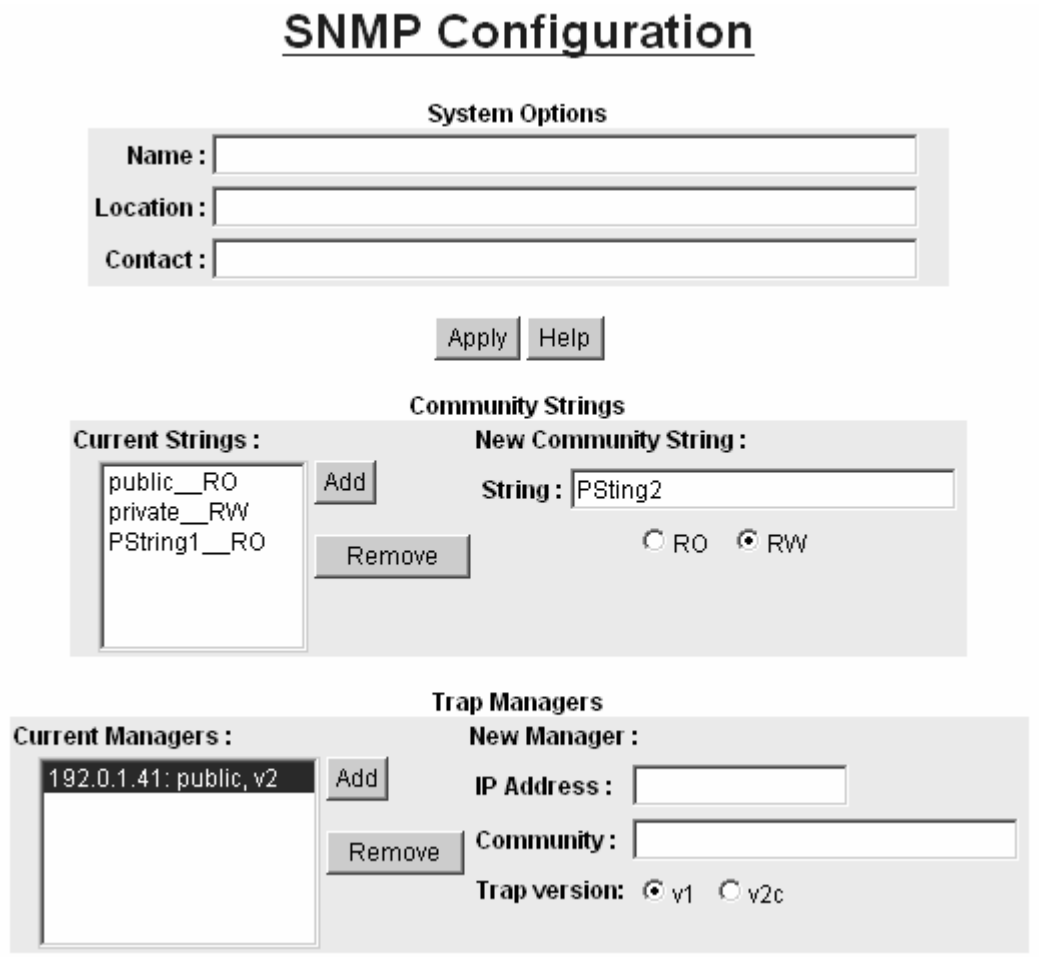
- **SNTP Client:** Enable or disable SNTP function to get the time from the SNTP server.
- **UTC Timezone:** Set the device location time zone. The following table lists the different location time zone for your reference.
- **SNTP Server IP:** Set the SNTP server IP address.
- **Switch Timer:** Displays the device current time.

Local Time Zone	Conversion from UTC	Time at 12:00 UTC
November Time Zone	- 1 hour	11am
Oscar Time Zone	-2 hours	10 am
ADT - Atlantic Daylight	-3 hours	9 am
AST - Atlantic Standard EDT - Eastern Daylight	-4 hours	8 am
EST - Eastern Standard CDT - Central Daylight	-5 hours	7 am
CST - Central Standard MDT - Mountain Daylight	-6 hours	6 am
MST - Mountain Standard PDT - Pacific Daylight	-7 hours	5 am
PST - Pacific Standard ADT - Alaskan Daylight	-8 hours	4 am

ALA - Alaskan Standard	-9 hours	3 am
HAW - Hawaiian Standard	-10 hours	2 am
Nome, Alaska	-11 hours	1 am
CET - Central European FWT - French Winter MET - Middle European MEWT - Middle European Winter SWT - Swedish Winter	+1 hour	1 pm
EET - Eastern European, USSR Zone 1	+2 hours	2 pm
BT - Baghdad, USSR Zone 2	+3 hours	3 pm
ZP4 - USSR Zone 3	+4 hours	4 pm
ZP5 - USSR Zone 4	+5 hours	5 pm
ZP6 - USSR Zone 5	+6 hours	6 pm
WAST - West Australian Standard	+7 hours	7 pm
CCT - China Coast, USSR Zone 7	+8 hours	8 pm
JST - Japan Standard, USSR Zone 8	+9 hours	9 pm
EAST - East Australian Standard GST Guam Standard, USSR Zone 9	+10 hours	10 pm
IDLE - International Date Line NZST - New Zealand Standard NZT - New Zealand	+12 hours	Midnight

SNMP Configuration

Use this page to define management stations as trap managers and to enter SNMP community strings. You can also define a name, location and contact person for the device.



SNMP configuration

Here you can define the new community string set and remove the unwanted community string.

System Option:

- **Name:** Fill in a string for identifying.
- **Location:** Fill in a string to describe where the Device is.
- **Contact:** Fill in a string to describe the contact personnel.
- Click Apply button.

Community Strings:

- **String:** Fill in a new community string which serve as passwords and can be entered as RO or RW type.
- **RO:** Read only. Enables requests accompanied by this community string to display MIB-object information.

- **RW:** Read write. Enables requests accompanied by this community string to display MIB-object information and to set MIB objects.
- Click Add button.
- To remove the community string, select the community string that you have defined and click Remove button. You cannot edit the name of the default community string set.

Trap Manager:

A trap manager is a management station that receives the trap messages generated by the Device. If no trap manager is defined, no traps will be issued. Create a trap manager by entering the IP address of the station and a community string. To define a management station as a trap manager, assign an IP address, enter the SNMP community strings, and select the SNMP trap version.

- **IP Address:** Enter the IP address of the trap manager.
- **Community:** Enter the community string.
- **Trap Version:** Select the SNMP trap version type—v1 or v2c.
- Click Add button.
- To remove the community string, select the community string listed in the current managers field and click Remove button.

There are three types of trap:

Standard: Includes DHCP Setting, Authentication Failure, and Cold Start.

Power over Ethernet: Includes DC disconnect, PD disconnect, Overload, Short Circuit, Over Temperature, Port off by Power Management.

UPS: Includes Power Disconnect, Power Fault, Battery Low, and Power Over Temperature.

[Note] Power over Ethernet traps also record in System Log and E-mail Alert.

Email Alert

You can set up the mail server IP, mail account, password, and forwarded email account for receiving the event alert.

- **Email Alert:** Enable or disable the email alert function.
- **SMTP Server IP:** Assign the mail server IP address (when **Email Alert** enabled, this function will then be available).
- **Sender:** Type in an alias of the device in complete email address format, e.g. poe_001@amer.com, to identify where the event log comes from.

- **Authentication:** Tick the checkbox to enable this function, configuring the email account and password for authentication (when **Email Alert** enabled, this function will then be available).
- **Mail Account:** Set up the email account, e.g. admin@amer.com, to receive the alert, please use valid email account on the mail server.
- **Password:** Enter the password to the email account.
- **Confirm Password:** Reconfirm the password.
- **Rcpt e-mail Address 1 ~ 4:** You can also assign up to 4 e-mail accounts to receive the alert.
- Click Apply button.

Email Alert

IP Security

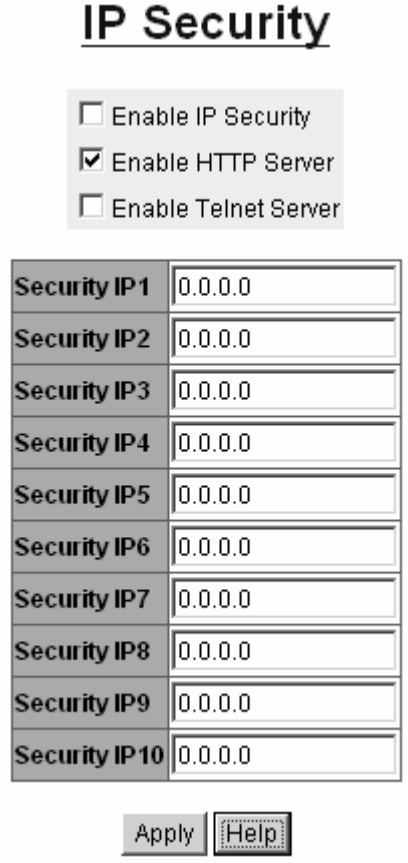
IP security function allows the user to assign 10 specific IP addresses that have permission to access the device through the web browser and telnet for the security management.

- **Enable IP Security:** When this option is in **Enable** mode, the **Enable HTTP Server** and **Enable Telnet Server** functions will then be available.
- **Enable HTTP Server:** When this checkbox is ticked, the IP addresses among Security IP1 ~ IP10 will be allowed to access this device via HTTP service.
- **Enable Telnet Server:** When this checkbox is ticked, the IP addresses among Security IP1 ~ IP10 will be allowed to access this device via telnet service.
- **Security IP 1 ~ 10:** The system allows the user to assign up to 10 specific IP addresses for access

security. Only these 10 IP addresses can access and manage the device through the HTTP/Telnet service.

- And then, click Apply button to apply the configuration.

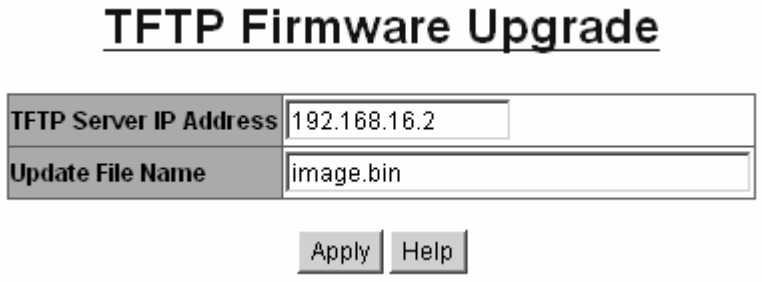
[NOTE] The SNTP and SMTP server IP address also need to be in the list. Remember to execute the "Save Configuration" action, otherwise the new configuration will lose when the device powers off.



IP Security

TFTP Firmware Update

It provides the functions that allow user to update the device firmware. Before updating, make sure the TFTP server is ready and the firmware image is located on the TFTP server.



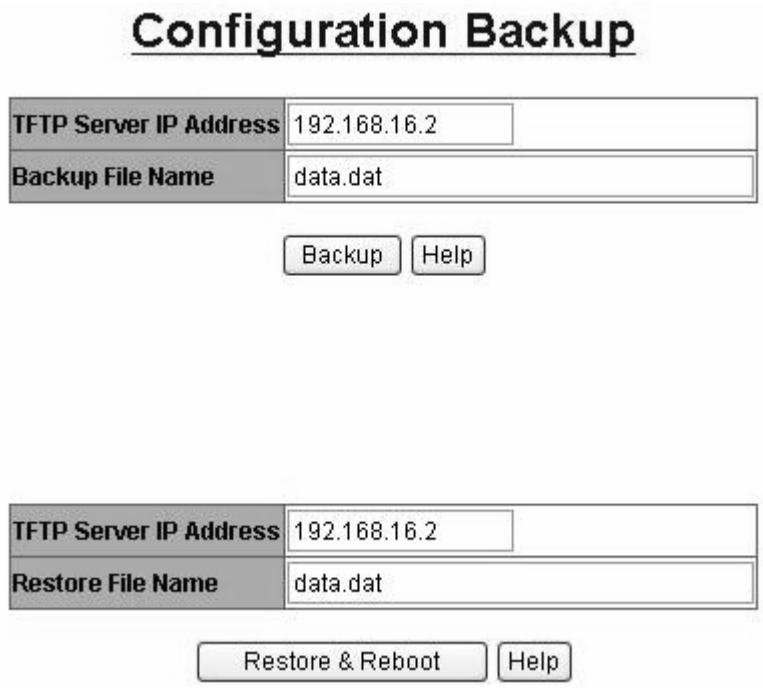
Update Firmware

- **TFTP Server IP Address:** Type in your TFTP server IP.
- **Firmware File Name:** Type in the name of the firmware image file.
- Click Apply button to start upgrading firmware for the PoE Midspan switch.

Configuration Backup

You can backup the current configuration from flash ROM to TFTP server or restore the old configuration from TFTP server.

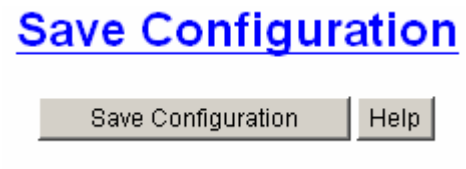
- **TFTP Server IP Address:** Type in the TFTP server IP.
- **Backup File Name:** Type in the file name for backup.
- **Restore File Name:** Type in the file name for restoring.
- Click Apply.



Backup/Restore Configuration

Save Configuration

Save Configuration is used to save the user configuration to permanent data. If users want to keep their configuration after rebooting, they must save configuration.



Save Configuration

Factory Default

Reset the device to the factory defaults. Click Default button to reset all configurations to the default value.

Factory default reset button

System Reboot

Reboot the device in software reset. Click Reboot button to reboot the system.

System reboot

Troubles shooting

Incorrect connections

To link the Managed PoE Midspan switch with other Ethernet device, you should use correct UTP/STP cable. The link will fail if the RJ-45 connector is not correctly pinned on right position.

■ Faulty or loose cables

Look for loose or obviously faulty connections. If they appear to be OK, make sure the connections are snug. IF that does not correct the problem, try a different cable.

■ Non-standard cables

Non-standard and miss-wired cables may cause numerous network collisions and other network problem, and can seriously impair network performance. A category 5-cable tester is a recommended tool for network installation.

Use unshielded twisted-pair (UTP) or shielded twisted-pair (STP) cable for RJ-45 connections. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).

■ Improper Network Topologies

It is important to make sure that you have a valid network topology. Common topology faults include excessive cable length and too many repeaters (devices) between end nodes. In addition, you should make sure that your network topology contains no data path loops. Between any two end nodes, there should be only one active cabling path at any time. Data path loops will cause broadcast storms that will severely impact your network performance.

Diagnosing LED Indicators

To assist in identifying problems, the device can be easily monitored through panel indicators, which describe common problems the user may encounter and where the user can find possible solutions.

IF the power indicator does not light on when the power cord is plugged in, you may have a problem with power outlet, or power cord. However, if the device powers off after running for a while check for loose power connections, power losses or surges at power outlet. If you still cannot resolve the problem, contact your local dealer for assistance.

Technical Specification

Technical specifications of SRPM24

Standard	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3af Power over Ethernet
Connector	RS-232 console: DB-9 Female x 2 RJ-45 connector: 1 for management, 48 for PoE application
Power Ethernet Mode	Support Mid-Span mode
PoE Port Number	24 ports
POE RJ-45 Pin Assignment	**Data port**: links to the Ethernet device and only carry Ethernet data on the 1,2,3,6 pins. **Data & Power**: links to PD and carry Ethernet data by RJ-45 pin 1,2,3,6, and deliver 48V DC power to PD by RJ-45 pin 4,5,7 and 8
Maximum Feeding Power	Per port 15.4 Watts and fully power support for 24 PoE ports. Total output: 400 Watts
Flash ROM	512K Bytes
System Memory	8M Bytes
LED	System power (Green) FAN: Fail (Red) PoE port: Power forwarding (Green), Over load /Short (Green) Ethernet Port: Link/Activity (Green), Full Duplex/Collision (Orange)

Power	400W switch power supply embedded. AC input 100~240V 50/60Hz, A (Maximum) DC input 48V
Power Consumption	407 Watts (Maximum) @AC 110V
Ventilation	4 Fans with fault detecting function
Operating Environment	0°C~45°C, 5%~95%RH
Storage Environment	-40°C ~70°C, 95% RH
Case Dimension (WxDxH)	17.3 inch x 11inch x 1.7 inch 440 mm x 280 mm x 44 mm
EMI	FCC Class A CE
Safety	UL cUL CE/EN60950-1

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